

Construction Skills Network Blueprint for UK Construction Skills 2009 to 2013





Contents

Chairman's message	3
The Big Picture	4
Comparing the Sectors	6
Comparing the UK regions and nations	8
Scotland	10
North East	12
North West	14
Yorkshire and Humber	16
East Midlands	18
West Midlands	20
Wales	22
East of England	24
Greater London	26
South East	28
South West	30
Northern Ireland	32
Explanation of terms	34
About the Construction Skills Network	35

ConstructionSkills is the Sector Skills Council for construction, tasked by Government to ensure the UK's largest industry has the skilled workforce it requires. Working with Government, training providers and employers, it is responsible for ensuring that the industry has enough qualified new entrants and that the existing workforce is fully skilled and qualified, as well as for improving the performance of the industry and the companies within it.

Chairman's message

It is essential that industry, particularly in these very tough economic times, can identify precisely when and where skills are needed.

The Construction Skills Network (CSN) has been providing the most detailed analysis of workflow and skills requirements available to industry for four very successful years. It combines the knowledge and expertise of regional industry experts with robust forecasting data to give the best view of activity. Furthermore, it has had its forecasts analysed against actual data, which has demonstrated its accuracy year on year.

The CSN has built upon its capabilities since 2005, increasing its membership, flexibility and methodology. It is now widely used as a predictive tool to inform decisions at all levels of the industry, in the regions and nations, and within the public sector.

Over the past year, we have continued to test a number of workflow scenarios within the industry, capturing prospective large construction projects and programmes of work in order to assess their impact on future skills needs at regional, national and sectoral level. Looking forward, there is a drive to increase the utilisation of the CSN's scenario planning capabilities, particularly so that we can examine how the recession is likely to impact on construction activity in the medium to long term.

We will also be keeping a very close eye on how the macro economic forecasts affect the model results and will respond with an interim forecast later this year, if necessary. It is our aim to make the most up-to-date information available to industry, and we have ensured that the CSN model is responsive to major fluctuations in workflow outcomes.

Continuing our partnership with the supply side community, we are refining our methodology for gathering more robust data on training provision at both Higher Education and Further Education levels. This is key to ensuring that the industry is training the right people in the right occupations at the right levels.



At the 2009 CSN observatories, we will be considering data that demonstrates where workers from our 26 occupational groups are engaged outside of the construction sector, in order to broaden our understanding of the mobility of our skilled workers. These are all big steps in the CSN's evolution, and they will continue to improve the quality and functionality of the forecasting process.

We have come a long way in a short time in developing the CSN. This is thanks to the huge commitment made by our members, for which I would like to extend my gratitude to them. I hope that you find as much value in the outcomes of their hard work as I have.

Sir Michael Latham Chairman Construction Skills Network

The Big Picture



Construction Output UK, 2008 (%)*



United Kingdom

Total employment and annual recruitment

requiremen	t (ARR) by occu	pation: 2	009-2013
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	Employment		ARR	
	2009	2013	2009-2013	
Senior, executive, and business process managers	98,010	105,160	1,600	
Construction managers	219,080	235,520	3,550	
Non-construction professional, technical, IT, and other office-based staff	282,340	292,630	1,460	
Wood trades and interior fit-out	281,150	285,750	4,370	
Bricklayers	88,160	90,920	2,420	
Building envelope specialists	92,590	95,870	1,050	
Painters and decorators	135,660	133,090	2,820	
Plasterers and dry liners	48,300	51,930	1,460	
Roofers	46,520	46,740	480	
Floorers	38,050	38,900	570	
Glaziers	41,740	43,300	1,220	
Specialist building operatives nec*	56,170	57,780	950	
Scaffolders	24,260	25,780	880	
Plant operatives	46,750	45,400	1,300	
Plant mechanics/fitters	27,060	27,820	880	
Steel erectors/structural	28,330	29,070	900	
Labourers nec*	116,590	125,070	1,950	
Electrical trades and installation	177,880	181,100	2,740	
Plumbing and HVAC Trades	176,920	180,110	1,290	
Logistics	32,280	34,300	660	
Civil engineering operatives nec*	59,660	58,150	710	
Non-construction operatives	123,930	125,540		
Total (SIC 45)	2,241,430	2,309,930	33,260	
Civil engineers	52,300	52,620	1,170	
Other construction professionals and technical staff	143,930	144,820	1,670	
Architects	40,550	40,490	400	
Surveyors	57,280	61,700	530	
Total (SIC 45 and 74.2)	2,535,490	2,609,560	37,030	

Despite the recession, construction is still likely to employ around 2.6m people in 2013.

The world has become a very different place than it was 12 months ago. While the global economy had been expected to show some slow down, no-one anticipated the level of exposure that the financial markets had to the bad debt created by the collapse of the sub-prime mortgage market in the US. Not only have industrialised economies seen turmoil in their financial markets in recent months, but those economies previously considered 'decoupled' from the West, such as China and India, have proved just as vulnerable to the spreading contagion, with falling share prices on their stock exchanges and shrinking export markets.

The UK economy has proved one of the most exposed to the debt crisis and according to the Organisation for Economic Cooperation and Development (OECD) is likely to suffer one of the worst contractions among the major European economies. By the end of 2009, it is likely that the UK economy will have experienced six quarters of falling output, a contraction that the construction industry will certainly not be immune from.

The recessionary period of the forecast will last through 2009 and into 2010 as the housing market continues to weaken and demand for industrial, office, retail and leisure facilities declines considerably. Examples of projects that have been affected by the economic downturn in recent months include a £290m mixed-use project with a large residential element in Hove, which has been cancelled due to lack of funding; and the development of Leadenhall Tower in London, nicknamed the 'Cheesegrater', the start of which has been delayed for at least a year. This will inevitably lead to a fall in construction employment over the short term and as movements in employment tend to lag those in output, it may not be until 2011 that the workforce starts to expand again.

It would be a mistake, however, to believe that activity will decline across the whole industry in the short term. There are a significant number of major projects and programmes of work that will continue across the forecast period which are dependant upon the government delivering to its public spending commitments, as set out in the 2007 Comprehensive Spending Review. Work on the main Olympic venues started ahead of schedule and will continue to at least the end of 2010. M25 widening is still scheduled to begin in the spring of 2009 and Crossrail in 2010. There are major station redevelopments taking place at a number of locations, including Blackfriars and Farringdon (as part of the Thameslink programme), Reading, Birmingham New Street, and Nottingham. Furthermore, the Scottish Government's £3bn 10-year transport investment plan continues, with M74 redevelopment currently on track and the Glasgow Airport Rail Link to start soon.

Construction work relating to the Building Schools for the Future programme will also help to mitigate falls in activity in other areas of the industry, despite a poor delivery up to March 2008 period.

By the second half of 2010, the expectation is that the worst will be over, credit conditions will have eased and the economy will start expanding again. Potential house purchasers will have seen affordability improve and will once again be able to access mortgage funding at a level of deposit that will be attainable.

On the supply side, developers, both of residential and nonresidential buildings, should see demand start to return to their respective markets and schemes that were mothballed during the recession should be able to be reactivated fairly quickly. Thus from 2011 construction output is predicted to start to rise again and by 2013 the rate of growth could be approaching 3% in real terms.

Overall, the effect of the recession will be to reduce construction output growth to around 0.5% per year between 2009 and 2013, compared to the 1.7% predicted for the 2008-2012 period.

Employment in the period is projected to increase by just over 74,000 from late 2010 onwards, an overall rise of 2.9% between 2009 and 2013. The annual recruitment requirement predicated on this level of output growth will be in the region of 37,000 new entrants a year, which does not include new entrant trainees.

It is important to point out that the 2009-2013 forecast divides into two distinct periods – one of recession and one of recovery

Comparing the Sectors



M6 Toll road

Infrastructure

Infrastructure continues to be the sector with the brightest prospects over the medium term, with projected output growth of 6.8% per year. There are a significant number of large projects either on site or in the pipeline and funding for other projects has actually been brought forward by the government in an attempt to stimulate the economy.

One or two projects have fallen by the wayside, such as further Docklands Light Railway extension, but these will be compensated by the addition of the Forth Replacement Crossing, for which a start date of 2011 is crucial if it is going to be ready in time to take heavy goods traffic from the current crossing before its projected closure to such vehicles in 2017. A further major addition to the project pipeline could be the Severn Barrage, which, if it gets the go-ahead quickly, could be on site by 2013.

Public and private housing

While the public housing sector is not projected to be quite as strong as infrastructure it is still expected to do considerably better than most other construction sectors. However, at present, social housing providers are struggling to keep new build activity up due to the lack of private developments on which to site units under section 106 agreements.

In the short term registered social landlords may turn to the purchase and refurbishment of existing units to meet targets. In the longer term demand for affordable housing remains strong, particularly in the south and east of England, and this will inevitably lead to increases in new build activity.

The credit crunch has been nothing short of very dramatic for the private housing sector. Despite the recent decline in interest rates, the level of deposit lenders now require is keeping most first time buyers out of the market and downward spiralling house prices are leading to a 'wait and see' attitude on the part of prospective purchasers. New housing starts have already fallen heavily and output over 2008 and 2009 is predicted to drop by around 45%.

However, the long term mismatch between supply and demand is only going to worsen over the next few years and once confidence returns to the market there is a good chance that a reasonably strong bounce back in activity will be seen. Nevertheless, it will be some time before output returns to the levels seen in the 2003 to 2007 period.

Public non-housing

Activity in the public non-housing sector is expected to increase strongly in the first part of the forecast period but tail off towards the end. The sector is currently being driven by the Building Schools for the Future (BSF) programme. While delivery had been disappointing up to March 2008, the programme has now built up a real head of steam with all but one of the Pathfinder and Wave 1 schemes now on site, as are half of the Wave 2 ones and one from Wave 3. The assumption has been made that Waves 1-4 in their entirety are safe, creating a substantial output stream until at least 2010.

Thereafter, however, the future is much more uncertain. Whichever government comes to power after the next general election is going to have to make some tough decisions about public spending in order to bring public debt back under control, and it would be dangerous to assume that the BSF programme would be immune to possible cut backs. There have also been questions raised over the affordability of the refurbishment programme which could have a further impact.

Industrial

Industrial construction output has already been in sharp decline throughout 2008 and this is expected to continue in 2009. Lack of both domestic and export demand means that manufacturers will have little incentive to invest in new facilities, while the boom in distribution and logistics facilities in the earlier part of the decade is well and truly over. Some growth may return to the sector from 2011 on the back of development of the distribution hinterlands around big ports projects in the North East and East of England.

Commercial

The office development cycle, previously expected to peak in 2009, has in fact done so in 2008 and activity in this area is now being kept up by work already on site. Once projects are completed, output will fall sharply as disappearing demand and difficulties obtaining finance are causing developers to put on hold or cancel projects.

Retailers and leisure providers also face a tough couple of years and thus are likely to scale back on expansion plans in the short term. There are a number of large football stadia planned, for example at Liverpool, Everton, Portsmouth and Tottenham Hotspur. However, financing for this activity may prove difficult to obtain, especially if the recession starts to affect match attendances.

Repair and Maintenance (R&M)

Housing R&M is likely to decline on average over the forecast period despite ongoing work on the public side through the Decent Homes for All programme in England, and the Welsh and Scottish Housing Quality Standard Schemes. Increases in public work are likely to be more than cancelled out by the weakness of private housing R&M. Consumers are likely to cut back on non-essential work on their properties as disposable incomes come under pressure and employment uncertainties increase. As the private market for R&M work is about twice the size of the public one, changes in the former has a much bigger effect on the overall figures than those in the latter.

Non-housing R&M output may fare a little better than housing R&M. With government finances under pressure there are real possibilities that routine and cyclical maintenance on public buildings could be cut back. However, in the short term the decision may be made to keep spending up due to the level of employment it supports – R&M is much more labour intensive than new work. On the private side, however, pressure on corporate asset values, profit margins and cash flow is likely to lead to cut backs on non-essential repairs.

Comparing the UK regions and nations



Average annual construction output growth in the UK regions and nations between 2009 and 2013 is projected to vary from a high of 1.6% in Northern Ireland to a low of -0.2% in the South West. If Northern Ireland is considered as an outlier, due to the proportionally large level of public investment allocated to the province over the next decade, then the variance comes down to just over 1%, with the highest growth rate of 0.9% per year for the East of England.

Northern Ireland's Investment Strategy has provision for some £18bn of funding between 2008 and 2018 to address the effects of chronic under investment in the province in the recent past. While only the first three years of this programme is fully committed and by no means all investment will be spent on construction, it is still likely to represent a high level of investment in a construction market worth around £2.2bn a year in real terms. However, Northern Ireland is no more immune to the current economic recession than the rest of the UK, and weak housing and commercial markets in the short term means that the average annual growth rate at 1.6% for 2009-2013 is well down on the 3.5% projected last year for the 2008-2012 period.

In contrast, the South West does not benefit from growth in the infrastructure and public non-housing sectors in the way that many other regions and nations do, as there are no major civil engineering projects planned for the region within the forecast period and few local authorities feature in the early phases of the Building Schools for the Future programme (BSF). Thus the South West has a slightly negative level of growth over the 2009-2013 period, the only region to experience a decline on average.

The three regions in the south east of the country, Greater London, the East of England, and the South East, are all projected to have similar growth rates between 2009 and 2013, averaging a high of 0.9% a year in the East of England to 0.5% in the South East. These regions benefit disproportionately from the large transport projects currently on site or in the pipeline. The East of England has three large ports projects due to go ahead in 2009 and 2010, at Shell Haven, Harwich and Felixstowe. In the South East, the first tranche of M25 widening is due to start in 2009 along with the redevelopment of Reading station. Greater London has ongoing works on the East London Line, Docklands Light Railway, Thameslink schemes and Victoria Underground station expansion, with the Crossrail build due to start in 2010.

In the capital, the infrastructure projects mentioned above would not in themselves be enough to help mitigate a significant fall in commercial construction in 2009 and 2010 as this sector accounts for over 50% of new work in London. However, the capital benefits strongly from the early stages of the Building Schools for the Future (BSF) programme, with 13 projects in Waves 1 to 4 worth close to £2bn. Furthermore, some £1bn of work on the Olympic Games venues is due to be delivered over the next couple of years. Growth in the Scottish construction industry will continue to be driven by its 10-year transport investment plan, worth around £3bn. The M74 completion project will continue to provide work until 2011, as will the Glasgow Airport Rail Link, due to start in earnest in 2009. However, the biggest project now in the pipeline is the Forth Replacement Crossing, a fiveyear project starting in 2011 with an estimated cost of between £1.7bn and £2.3bn.

The situation is similar in Wales: the infrastructure sector is projected to grow at an annual rate of 5.2% over the period as planned road projects get underway such as the \pounds 84m Port Talbot Peripheral Distributor Road, the \pounds 320m PFI scheme to expand the M4 and a new bridge across the Menai Strait. Other schemes include the \pounds 400m wood-chip fuelled electricity station at Port Talbot. The biggest project on the horizon for the sector is the Severn Barrage scheme, for which feasibility studies are currently being undertaken. If this \pounds 15bn project gets the go-ahead it may start before the end of the forecast period, although output from the scheme would be shared across Wales and the South West of England.

Despite low employment growth at 1.8% between 2009 to 2013, the West Midlands has one of the higher annual recruitment requirements at 3,620 due to the fact that the region contends with significant outflows from its construction workforce. Meanwhile, the East Midlands will demonstrate a buoyant level of infrastructure work allied to expected return confidence in the private housing sector from 2011 following a severe decline from 2008. However, the region is forecast to outperform the UK average for construction output between 2009 and 2013.

Besides the South West, only one other region (Yorkshire and Humber) is projected to show no growth over the 2009-2013 period. This is a function of a very poor 2009 predicated on the largest fall in new orders in any region or nation in 2008. In the North West forecasts show output growth is below the UK average between 2009–2013. The region benefits heavily from investment in waves 1–4 of the Building Schools for the Future programme and a number of infrastructure projects which are also expected to get underway, such as phase 3 of the Manchester Metrolink and widening of a stretch of the M6. Currently publicly funded projects are holding up activity in the region.

Not surprisingly, the strongest demand for new entrants to the industry will be in those regions with the biggest construction markets – Greater London and the South East. However, the North East has quite a high demand for new entrants due to the significant level of net outflow of the workforce in the region, while Yorkshire and the Humber has a low requirement due to the relative weakness of output and a low level of net outflow.

Scotland

Scotland Total employment by occupation:

2009 and 2013	
2009 2013	0 10,000 20,000 30,000 I I I I I
Senior, executive, and business process managers	7,250 7,930
Construction managers	16,010 17,180
Non-construction professional, technical, IT, and other office-based staff	19,200 19,970
Wood trades and interior fit-out	
Bricklayers	6,460 6,680
Building envelope specialists	4,990 5,240
Painters and decorators	12,940 12,680
Plasterers and dry liners	3,180 3,320
Roofers	4,970 5,150
Floorers	2,280 2,380
Glaziers	2,050 2,180
Specialist building operatives nec*	4,590 4,620
Scaffolders	2,410 2,480
Plant operatives	7,850 7,480
Plant mechanics/fitters	1,970 2,000
Steel erectors/structural	3,830 3,880
Labourers nec*	12,470 13,000
Electrical trades and installation	11,940 12,060
Plumbing and HVAC Trades	14,220 14,200
Logistics	4,050 4,300
Civil engineering operatives nec*	6,660 6,700
Non-construction operatives	9,700 9,620
Civil engineers	4,910 5,050
Other construction professionals and technical staff	12,220 12,270
Architects	5,840 5,860
Surveyors	4,510 4,970

Construction Output by main sub-sector: UK vs. Scotland, 2008 (%)*



Scotland

40,000

36,100 36,880

Total employment and annual recruitment requirement (ARR) by occupation: 2009-2013

requirement (Ann) by occupation. 2009-2013					
	Emplo	Employment			
	2009	2013	2009-2013		
Senior, executive, and business process managers	7,250	7,930	120		
Construction managers	16,010	17,180	300		
Non-construction professional, technical, IT, and other office-based staff	19,200	19,970	70		
Wood trades and interior fit-out	36,100	36,880	820		
Bricklayers	6,460	6,680	190		
Building envelope specialists	4,990	5,240	100		
Painters and decorators	12,940	12,680	170		
Plasterers and dry liners	3,180	3,320	220		
Roofers	4,970	5,150	50		
Floorers	2,280	2,380	<50		
Glaziers	2,050	2,180	<50		
Specialist building operatives nec*	4,590	4,620	100		
Scaffolders	2,410	2,480	140		
Plant operatives	7,850	7,480	320		
Plant mechanics/fitters	1,970	2,000	160		
Steel erectors/structural	3,830	3,880	160		
Labourers nec*	12,470	13,000	90		
Electrical trades and installation	11,940	12,060	190		
Plumbing and HVAC Trades	14,220	14,200	60		
Logistics	4,050	4,300	70		
Civil engineering operatives nec*	6,660	6,700	200		
Non-construction operatives	9,700	9,620			
Total (SIC 45)	195,120	199,930	3,550		
Civil engineers	4,910	5,050	110		
Other construction professionals and technical staff	12,220	12,270	210		
Architects	5,840	5,860	<50		
Surveyors	4510	4,970	<50		
Total (SIC 45 and 74.2)	222,600	228,080	3,960		

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Construction output in Scotland is forecast to grow at an annual average rate of 0.6% between 2009 and 2013, down on the 1.2% predicted for the 2008-2012 period. The annual average growth rate disguises a fall in the earlier part of the forecast period, with growth in output only taking place from 2011 onwards.

Total construction employment is forecast to grow by 2.5% between 2009 and 2013, a little lower than the UK average of 2.9% and well down on the 7.5% predicted last year for the 2008-2012 period.



Oran Mor, heritage building, Glasgow



Scottish Parliament Building, Edinburgh

Key findings

The strongest sector in Scotland will be in the infrastructure sector, expected to be around 5.4% over the period 2009-2013 - almost twice the rate of the next strongest sector, public housing. The strength of activity continues to be driven by the Scottish government's 10-year transport investment plan, worth around £3bn. The biggest project now in the pipeline is the Forth Replacement Crossing, which lies outside the investment plan. This is a five-year project starting in 2011 with an estimated cost of between £1.7bn and £2.3bn.

The Scottish government is currently going through a consultation process on how investment in affordable housing can be used most efficiently to maximise the supply of new affordable homes. This consultation is due to complete in April 2010 when lead developers will be identified for 2010-2015 and subsidies awarded for 2010 to 2012. Thus the expectation is that the social housing market will grow over most of the forecast period.

Public non-housing output is predicted to continue to fall from its very high peak in 2006, as most schools' construction work in Scotland is currently funded through the Public-Private Partnership route and thus output will appear in the commercial sector. However, there is some £530m of college projects due to start by 2010, the largest of which is the £300m Glasgow College development.

The private housing market is expected to be over the worst conditions by 2010, although the steep fall in output for 2009 means that the average annual growth rate for 2009-2013 is negative.

Commercial work, as is the case in all other regions and nations, will continue to suffer from weak demand for new office, retail and leisure space, thus sharp falls in output will be seen until 2010. However, as the economic environment improves and credit conditions ease, developers should see levels of demand pick-up and projects currently on hold could get back on site quickly.

Growth in the R&M sector may be driven by the Scottish Housing Quality Standard programme, designed to bring all social housing up to an agreed standard by 2015. However, the experience of Decent Homes for All, a similar programme that is due to finish in England in April 2010, is that work is slow to come through and doesn't necessarily create the output streams expected.

To account for demand and net workforce flows¹ in the industry, Scotland needs to recruit 3,960 new people each year to 2013. In absolute terms the biggest recruitment requirement is for wood trades and interior fit out specialists at 820 per year but as a proportion of its workforce, plant mechanics/fitters will be the most in demand.

£1.7bn - £2.3bn

The projected cost of the Forth Replacement Crossing, due to start in 2011

North East

North East
Total employment by
2009 and 2013

2000 and 2010	
2009 2013	0 4,000 8,000 12,000 16,000 I I I I I
Senior, executive, and business process managers	
Construction managers	10,450
Non-construction professional, technical, IT, and other office-based staff	6,390
Wood trades and interior fit-out	12,200 12,820
Bricklayers	4 740
Building envelope specialists	3,500 3,750
Painters and decorators	6,500 6,710
Plasterers and dry liners	3,270
Roofers	2,940 3,010
Floorers	2,710
Glaziers	1,300
Specialist building operatives nec*	2,990 3,110
Scaffolders	1,520 1,640
Plant operatives	3,790 3,810
Plant mechanics/fitters	2,700 2,840
Steel erectors/structural	2,050 2,170
Labourers nec*	5,960 6,510
Electrical trades and installation	10,260 10,700
Plumbing and HVAC Trades	8,280 8,650
Logistics	1,250 1,330
Civil engineering operatives nec*	4,430 4,400
Non-construction operatives	4,360 4,470
Civil engineers	2,210 2,210
Other construction professionals and technical staff	
Architects	1,320 1,370
Surveyors	420 390

Construction Output by main sub-sector: UK vs. North East, 2008 (%)*



	Employment		ARR	
	2009	2013	2009-2013	
Senior, executive, and business process managers	3,680	3,890	50	
Construction managers	10,450	11,420	170	
Non-construction professional, technical, IT, and other office-based staff	6,390	6,700	220	
Wood trades and interior fit-out	12,200	12,820	280	
Bricklayers	4,740	5,030	170	
Building envelope specialists	3,500	3,750	120	
Painters and decorators	6,500	6,710	<50	
Plasterers and dry liners	3,050	3,270	90	
Roofers	2,940	3,010	<50	
Floorers	2,650	2,710	60	
Glaziers	1,300	1,390	<50	
Specialist building operatives nec*	2,990	3,110	60	
Scaffolders	1,520	1,640	120	
Plant operatives	3,790	3,810	<50	
Plant mechanics/fitters	2,700	2,840	<50	
Steel erectors/structural	2,050	2,170	<50	
Labourers nec*	5,960	6,510	60	
Electrical trades and installation	10,260	10,700	160	
Plumbing and HVAC Trades	8,280	8,650	<50	
Logistics	1,250	1,330	<50	
Civil engineering operatives nec*	4,430	4,400	50	
Non-construction operatives	4,360	4,470		
Total (SIC 45)	104,990	110,330	1,850	
Civil engineers	2,210	2,210	60	
Other construction professionals and technical staff	7,100	7,360	70	
Architects	1,320	1,370	<50	
Surveyors	420	390	<50	
Total (SIC 45 and 74.2)	116,040	121,660	2,010	

After three years in which the five-year outlook has remained stable, the forecast for construction output growth in the North East has fallen to 0.5% a year for 2009 to 2013, due largely to the UK-wide economic downturn. However, employment growth in the region is expected to be close to 5% over the five year period, one of the highest rates in the UK, due to a relatively strong bounce back in activity in 2012 and 2013.



Millennium Bridge, Gateshead



Devonshire Building, University of Newcastle

Key findings

Although the annual average growth rate has fallen in the North East, it remains broadly in line with the UK average and similar to that in the South East, Wales and Scotland. There are marked differences in sector performances over the period, with average annual growth rates varying between 4.8% and -2.5%. The most buoyant sector is expected to be infrastructure, with work predicted to start on the deep sea container port development at Teesport by 2010.

Growth of 3.7% per year is expected in the public housing sector, mainly due to increased funding for the region from the 2008-11 National Affordable Housing programme. Delivery of new social housing units is predicted to be stronger in the second half of the forecast period. In the first half social housing providers may find it difficult to access appropriate sites, as the fall in private developments will constrain the amount of social building that can be done under section 106 agreements.

The commercial sector is predicted to expand at a weak rate over the period 2009-2013, as the retail and office sub-sectors are hit hard by the economic downturn. A bounce back is likely from 2011 as economic prospects improve and work again takes off on some of the big regeneration projects in the region such as Middlehaven in Middlesbrough.

The public non-housing sector is expected to see an average annual contraction in output over the forecast period, despite work continuing on the Building Schools for the Future (BSF) programme. The North East does well out of the first four waves of the programme, with five projects and £543m of public funding. However, whatever government comes to power in the next general election may be under pressure to reduce public expenditure to bring down the public debt, and it cannot be assumed that the BSF programme would be immune to cut backs. Private housing in the North East has been badly hit by the credit crunch and weakening economic conditions and output in the sector is predicted to decline at an average annual rate of 2.5% over the forecast period, although the outlook for the sector improves from 2011.

To meet demand, employment is expected to grow by around 5% in the North East over the 2009 to 2013 period, one of the highest growth rates, although well down on the 9% projected for the 2008 to 2012 period. The relatively high growth in the North East is due to a relatively strong bounce-back in output growth in the region in 2012 and 2013. In percentage terms the largest increases are forecast for labourers not elsewhere classified (nec*) at around 9%, scaffolders at 8% and building envelope specialists and plasterers and dryliners at 7%. The annual recruitment requirement for the region, at 2,010, is high in relation to the size of the region, due to the strength of net flows of the workforce to other regions.

2,010

The annual recruitment requirement for the North East remains relatively high due to the strength of net outflows from the construction workforce

North West

••• North West

North West Total employment to 2009 and 2013	by occupation:
2009 2013	0 10,000 20,000 30,000 40,000
Senior, executive, and business process managers	6,820 7,310
Construction managers	22,790 24,200
Non-construction professional, technical, IT, and other office-based staff	29,990 30,810
Wood trades and interior fit-out	27,320 27,710
Bricklayers	8,570 8,700
Building envelope specialists	8,080 8,610
Painters and decorators	14,870 14,460
Plasterers and dry liners	6,860 7,210
Roofers	4,610 4,480
Floorers	4,170 4,200
Glaziers	5,740 5,980
Specialist building operatives nec*	3,360 3,520
Scaffolders	2,490 2,730
Plant operatives	4,100 4,100
Plant mechanics/fitters	3,810 3,770
Steel erectors/structural	2,930 3,120
Labourers nec*	12,640 13,600
Electrical trades and installation	19,280 19,620
Plumbing and HVAC Trades	18,220 18,090
Logistics	3,400 3,730
Civil engineering operatives nec*	6,310 6,110
Non-construction operatives	14,450 14,530
Civil engineers	6,220 6,030
Other construction professionals and technical staff	18,770 18,900
Architects	2,700 2,610
Surveyors	6,850 7,260

Со ИК

Construction Output by main sub-sector: UK vs. North West, 2008 (%)*



North West

Total employment and annual recruitment

requirement	pecupation	. 2003-2010

Senior, executive, and business process managers Construction managers	2009 6,820 22,790 29,990 27,320	2013 7,310 24,200 30,810	2009-2013 <50 450
process managers	22,790 29,990	24,200	450
Construction managers	29,990	,	
		30,810	100
Non-construction professional, technical, IT, and other office-based staff	27 320		100
Wood trades and interior fit-out	21,020	27,710	330
Bricklayers	8,570	8,700	470
Building envelope specialists	8,080	8,610	160
Painters and decorators	14,870	14,460	590
Plasterers and dry Liners	6,860	7,210	320
Roofers	4,610	4,480	<50
Floorers	4,170	4,200	70
Glaziers	5,740	5,980	310
Specialist building operatives nec*	3,360	3,520	60
Scaffolders	2,490	2,730	80
Plant operatives	4,100	4,100	130
Plant mechanics/fitters	3,810	3,770	<50
Steel erectors/structural	2,930	3,120	90
Labourers nec*	12,640	13,600	400
Electrical trades and installation	19,280	19,620	400
Plumbing and HVAC Trades	18,220	18,090	140
Logistics	3,400	3,730	<50
Civil engineering operatives nec*	6,310	6,110	90
Non-construction operatives	14,450	14,530	
Total (SIC 45)	230,810	236,590	4,290
Civil engineers	6,220	6,030	70
Other construction professionals and technical staff	18,770	18,900	280
Architects	2,700	2,610	<50
Surveyors	6,850	7,260	100
Total (SIC 45 and 74.2)	265,350	271,390	4,780

The North West continues to have one of the highest annual recruitment requirements in the UK despite its annual average output growth rate falling to just 0.2% between 2009 and 2013, below the UK average of 0.5%. Publicly funded projects will hold up activity in the region as the private housing and commercial sectors face a tough couple of years before emerging leaner in 2010 and 2011.



Exterior of Liver Building, Liverpool



Gorton Monastery, Manchester

Key findings

2007 was a good year for construction in the North West, with the sector experiencing 8% growth, the best in the region since 2003. However, activity in the region is estimated to have turned down in 2008, earlier than in most other areas. In particular commercial construction output growth has turned negative in the North West while remaining positive across the UK as a whole.

As is the case in many parts of the UK, the strongest growth is predicted for the infrastructure sector, with an average annual growth rate of 5.3% over the five-year period. A number of projects are expected to get underway, including phase 3 of the Manchester Metrolink and widening of a stretch of the M6.

The North West benefits heavily from the Building Schools for the Future (BSF) programme, with over £2.1bn of investment in waves 1-4 of the scheme, spread across 10 projects, four of which are now on site.

Growth is also expected for the public housing sector, resulting from the government increasing its investment in social housing. The North West has been allocated £290m funding in the 2008-11 National Affordable Housing Programme. Unsurprisingly, the outlook for the private housing sector is weak, and output is expected to decline at an annual average rate of 1% between 2009 and 2013. Continued uncertainty and tight credit conditions are leading to stagnating demand in the sector and, until things improve, developers are unlikely to start anything new.

The commercial sector is very exposed to the current economic situation, with the office market deteriorating rapidly and weak consumer spending compounding the sector's problems. A decline of 2% per year is expected and even prestigious projects such as new stadia for both Liverpool and Everton Football Clubs may suffer delays in the short term as financing remains difficult to obtain.

Both the housing and non-housing R&M sectors are predicted to see weak annual declines in output over the five-year period. While house owners should start spending on their properties again once economic conditions improve, this will be counteracted by the fall-off of work in the public sector as the Decent Homes for All programme winds down.

Construction employment is expected to rise by just over 6,000 to reach 271,390 in 2013, a 2.3% increase over the projection for 2009. Construction managers are expected to see by far the largest increase in employment, with the number of workers rising by 1,410 over the five years to 2013. Logistics and scaffolders are expected to see the largest proportional increase in employment between 2009 and 2013, rising by close to 10% in each occupational group. The region's annual recruitment requirement, at 4,780, remains one of the highest in the UK.

4,780

The North West still has one of the highest annual recruitment requirements in the UK • Vorkshire and Humber

Yorkshire and Humber

Yorkshire and Hum Total employment 2009 and 2013		ccupation:			
2009 2013	0	8,000 I	16,000 I	24,000 I	32,000 I
Senior, executive, and business process managers			7,900 8,390		
Construction managers				20,500 21,670)
Non-construction professional, technical, IT, and other office-based staff				23,2 23,5	
Wood trades and interior fit-out				22,48 22,37	0 0
Bricklayers			9,820 9,990		
Building envelope specialists			8,020 8,130		
Painters and decorators			10,200 9,760		
Plasterers and dry liners		4,00 4,20			
Roofers		3,56 3,54			
Floorers		3,40 3,60			
Glaziers		3,49 3,64			
Specialist building operatives nec*		3,53 3,70			
Scaffolders		3,43 3,48	0 0		
Plant operatives		2,96 2,88	D D		
Plant mechanics/fitters		2,320 2,440			
Steel erectors/structural		2,740 2,690			
Labourers nec*			10,560 10,860		
Electrical trades and installation			1	17,200 6,750	
Plumbing and HVAC Trades				18,120 18,360	
Logistics		2,510 2,790			
Civil engineering operatives nec*			720 360		
Non-construction operatives			8,670 8,880		
Civil engineers		3,69 3,51	0 0		
Other construction professionals and technical staff			9,180 8,870		
Architects		1,720 1,720			
Surveyors			380 ,990		

Construction Output by main sub-sector: UK vs. Yorkshire and Humber, 2008 (%)*



Yorkshire and Humber

Total employment and annual recruitment requirement (ARR) by occupation: 2009-2013

	Emplo	ARR	
	2009	2013	2009-2013
Senior, executive, and business process managers	7,900	8,390	<50
Construction managers	20,500	21,670	240
Non-construction professional, technical, IT, and other office-based staff	23,230	23,540	50
Wood trades and interior fit-out	22,480	22,370	140
Bricklayers	9,820	9,990	130
Building envelope specialists	8,020	8,130	<50
Painters and decorators	10,200	9,760	110
Plasterers and dry liners	4,000	4,280	<50
Roofers	3,560	3,540	<50
Floorers	3,400	3,600	<50
Glaziers	3,490	3,640	<50
Specialist building operatives nec*	3,530	3,700	<50
Scaffolders	3,430	3,480	<50
Plant operatives	2,960	2,880	<50
Plant mechanics/fitters	2,320	2,440	<50
Steel erectors/structural	2,740	2,690	70
Labourers nec*	10,560	10,860	110
Electrical trades and installation	17,200	16,750	120
Plumbing and HVAC Trades	18,120	18,360	50
Logistics	2,510	2,790	70
Civil engineering operatives nec*	5,720	5,360	<50
Non-construction operatives	8,670	8,880	
Total (SIC 45)	194,360	197,100	1,310
Civil engineers	3,690	3,510	<50
Other construction professionals and technical staff	9,180	8,870	<50
Architects	1,720	1,720	<50
Surveyors	5,380	5,990	<50
Total (SIC 45 and 74.2)	214,330	217,190	1,390

There is expected to be broadly no change in total construction output in Yorkshire and Humber in the five-year period to 2013. A marginal contraction of 0.1% per year in new work output and a weak annual average growth of 0.2% for repair and maintenance (R&M) work, translates into only marginal growth in employment between 2009 and 2013, by just 1.3%.



Winter Garden, Sheffield



The Arc Building, Humbe

Key findings

Yorkshire and Humber has been the weakest region in 2008 in terms of both new construction orders and output, and worrying for its short-term outlook has been the very sharp decline in new orders. New orders in the region were down by over 40% in the first three quarters of 2008 compared with the same period of 2007, a fall that is likely to lead to a decreased output in 2009.

Over the whole of the forecast period, the strongest performance is expected in the infrastructure and public housing sectors. Infrastructure output is forecast to increase at a rate of 3.5% per year between 2009 and 2013. Work is ongoing on two power stations in Killingholme and Selby and there are continuing road improvements on the A1. Further energy projects are in the pipeline, including a £60m biomass plant in Sheffield, with work due to start in mid-2009.

The public housing sector is forecast to see annual average growth of 3.2%, largely due to the government's commitment to increased funding for affordable housing.

Marginal growth is expected for the industrial sector. The warehousing boom of recent years is well and truly over, as large retailers are struggling as much as anyone from the economic downturn. This may improve towards the end of the forecast period as conditions begin to pick up. Furthermore, new distribution facilities tend to be sited close to new or improved transport links. Thus if the planned upgrade of the M1/M62 starts to take place, this could give a boost to the sector. Investment in new factories looks unlikely given the poor outlook for manufacturing.

The only other sector to see output growth is public non-housing, albeit at a very weak rate. Total funding for the Building Schools for the Future (BSF) programme in Yorkshire and Humber is expected to be £1.6bn for waves 1 to 4 (both public and private money). However, funding for the programme post-wave 4 is uncertain, and this is reflected in the weak outlook for the sector towards the end of the forecast period.

Commercial output is expected to fall overall during the 2009-2013 period, although the decline will take place in the first part of the forecast period as many of the mixed-use regeneration projects in towns and cities such as Wakefield and Sheffield are put on hold during the recession.

Construction employment is projected to remain largely static between 2009 and 2013, with just 1.3% growth over the five-year period to around 217,000. The largest increases in employment are expected to be for managerial and professional staff, with construction managers rising by 1,170 between 2009 and 2013, surveyors by 690 and senior, executive and business process managers by 490. Considering the size of the region's construction market, Yorkshire and Humber's annual recruitment requirement is very low at just 1,390. This is due to the lack of output growth and very low net outflows of the construction workforce from the region.

Infrastructure output is forecast to increase at a rate of

3.5% per year between 2009 and 2013

East Midlands



	- In the second se		 	
2009	and	201		

2009 2013	0 5,000 10,000 15,000 20,000
Senior, executive, and business process managers	5,160 5,610
Construction managers	14,320 15,590
Non-construction professional, technical, IT, and other office-based staff	17,100 17,670
Wood trades and interior fit-out	16,680 17,740
Bricklayers	6,540 7,110
Building envelope specialists	6,280 6,300
Painters and decorators	6,280 6,010
Plasterers and dry liners	2,500 2,770
Roofers	1,750 1,700
Floorers	2,550 2,590
Glaziers	2,260 2,460
Specialist building operatives nec*	3,130 3,220
Scaffolders	1,120 1,150
Plant operatives	2,250 2,290
Plant mechanics/fitters	2,140 2,230
Steel erectors/structural	1,940 1,930
Labourers nec*	5,510 6,170
Electrical trades and installation	14,910 15,220
Plumbing and HVAC Trades	9,910 10,080
Logistics	2,370 2,590
Civil engineering operatives nec*	2,660 2,560
Non-construction operatives	9,040 9,550
Civil engineers	2,230 2,290
Other construction professionals and technical staff	8,710 8,510
Architects	1,730 1,680
Surveyors	3,100 3,370





East Midlands

Total employment and annual recruitment

requirement (ARR) by occuj	pation: 2009-2013
	Employment

ARR

	2009	2013	2009-2013	
Senior, executive, and business process managers	5,160	5,610	70	
Construction managers	14,320	15,590	320	
Non-construction professional, technical, IT, and other office-based staff	17,100	17,670	60	
Wood trades and interior fit-out	16,680	17,740	270	
Bricklayers	6,540	7,110	50	
Building envelope specialists	6,280	6,300	<50	
Painters and decorators	6,280	6,010	190	
Plasterers and dry liners	2,500	2,770	<50	
Roofers	1,750	1,700	<50	
Floorers	2,550	2,590	<50	
Glaziers	2,260	2,460	130	
Specialist building operatives nec*	3,130	3,220	<50	
Scaffolders	1,120	1,150	<50	
Plant operatives	2,250	2,290	130	
Plant mechanics/fitters	2,140	2,230	<50	
Steel erectors/structural	1,940	1,930	<50	
Labourers nec*	5,510	6,170	100	
Electrical trades and installation	14,910	15,220	220	
Plumbing and HVAC Trades	9,910	10,080	<50	
Logistics	2,370	2,590	<50	
Civil engineering operatives nec*	2,660	2,560	<50	
Non-construction operatives	9,040	9,550		
Total (SIC 45)	136,400	142,540	1,790	
Civil engineers	2,230	2,290	90	
Other construction professionals and technical staff	8,710	8,510	70	
Architects	1,730	1,680	<50	
Surveyors	3,100	3,370	<50	
Total (SIC 45 and 74.2)	152,170	158,390	1,980	

The East Midlands sits towards the top of the annual average output growth rankings, with an expected increase of 0.8% a year between 2009 and 2013, above the UK average of 0.5%. However, this disguises a significant fall at the start of the period, following on from declines in both 2007 and 2008, before recovery begins in 2010. Employment is projected to grow by 4.1% between 2009 and 2013, but this is after a significant fall in the previous two years.



Leicester City Football Stadium



National Space Centre, Leicester

Key findings

The private housing sector has been hit very badly in recent months and conditions are unlikely to improve in the short term as new orders have declined by 56% over the first three quarters of 2008, one of the biggest regional falls. However, as economic conditions improve and confidence begins to return to the housing market, a recovery in new work output is expected from 2011.

The public housing sector is expected to experience moderate growth overall in the 2009-2013 period, with an allocation of £316m in the 2008-11 Affordable Housing Programme. However, it is suffering in the short term as social housing providers struggle to find sites for affordable developments and access private finance.

By far the strongest increase in the region is expected in the infrastructure sector, with annual average growth of 7.7% over the five-year period. The buoyancy of the sector is due to the widening of the M1, with the next stage due to start in late 2009 or 2010. Planning permission has also been granted for two power stations in the region, one in Drakelow, Derbyshire and the other in West Burton, Nottinghamshire. Work is also expected to start on phase two of the extension to the Nottingham Express Transit system towards the end of the period.

The economic downturn has meant that the speculative industrial developments planned at Wellingborough, Corby, and Kettering have largely evaporated in the short term, although both the industrial and commercial sectors are expected to experience growth over the forecast period as a whole. The non-housing R&M sector is forecast to see marginal average annual growth, while the housing R&M sector is expected to decline at a rate of 0.2% per year, reflecting weaker consumer spending, and the winding down of public work under the Decent Homes for All programme post-2010.

Total construction employment in the East Midlands is projected to increase by around 6,200 between 2009 and 2013 to 158,390, but this is after a sharp fall between 2007 and 2009. Wood trades and interior fit-out (17,740) is expected to be the largest occupational group in the East Midlands by 2013. Construction managers and wood trades and interior fit-out are set to see the largest increase in employment between 2009 and 2013, with employment forecast to rise by over 1,000 in each group. The East Midlands annual recruitment requirement, at 1,980, is less than half that reported last year for the 2008-2012 period.

7.7%

Growth in infrastructure output is driven by M1 improvement works

West Midlands

West Midlands Total employment b 2009 and 2013	by occupation:
2009 2013	0 8,000 16,000 24,000 32,000
Senior, executive, and business process managers	11,440 11,950
Construction managers	17,970 19,150
Non-construction professional, technical, IT, and other office-based staff	25,560 26,320
Wood trades and interior fit-out	18,280 18,010
Bricklayers	6,480 6,400
Building envelope specialists	7,390 7,410
Painters and decorators	11,730 11,370
Plasterers and dry liners	3,060 3,310
Roofers	5,800 5,970
Floorers	3,320 3,400
Glaziers	5,860 5,950
Specialist building operatives nec*	5,850 5,820
Scaffolders	2,010 2,180
Plant operatives	2,050 2,020
Plant mechanics/fitters	1,620 1,640
Steel erectors/structural	2,230 2,240
Labourers nec*	7,760 8,350
Electrical trades and installation	17,340 17,800
Plumbing and HVAC Trades	15,280 15,420
Logistics	2,710 2,770
Civil engineering operatives nec*	5,440 5,250
Non-construction operatives	12,920 13,090
Civil engineers	5,450 5,460
Other construction professionals and technical staff	11,900 11,720
Architects	▶ 1,190 ▶ 1,160
Surveyors	4,500 4,910





West Midlands

Total employment and annual recruitment

requirement	(ARR) D	/ occupation:	2009-2013

	Emplo	ARR	
	2009	2013	2009-2013
Senior, executive, and business process managers	11,440	11,950	150
Construction managers	17,970	19,150	440
Non-construction professional, technical, IT, and other office-based staff	25,560	26,320	140
Wood trades and interior fit-out	18,280	18,010	550
Bricklayers	6,480	6,400	130
Building envelope specialists	7,390	7,410	70
Painters and decorators	11,730	11,370	160
Plasterers and dry liners	3,060	3,310	<50
Roofers	5,800	5,970	60
Floorers	3,320	3,400	80
Glaziers	5,860	5,950	200
Specialist building operatives nec*	5,850	5,820	60
Scaffolders	2,010	2,180	100
Plant operatives	2,050	2,020	50
Plant mechanics/fitters	1,620	1,640	80
Steel erectors/structural	2,230	2,240	80
Labourers nec*	7,760	8,350	240
Electrical trades and installation	17,340	17,800	460
Plumbing and HVAC Trades	15,280	15,420	100
Logistics	2,710	2,770	100
Civil engineering operatives nec*	5,440	5,250	<50
Non-construction operatives	12,920	13,090	
Total (SIC 45)	192,100	195,820	3,320
Civil engineers	5,450	5,460	50
Other construction professionals and technical staff	11,900	11,720	150
Architects	1,190	1,160	<50
Surveyors	4,500	4,910	70
Total (SIC 45 and 74.2)	215,140	219,070	3,620

Total construction output in the West Midlands is expected to increase by an annual average rate of 0.2% over the forecast period, slower than the UK figure of 0.5%. New work growth is expected to be in line with this figure, with the repair and maintenance (R&M) sector increasing on average by a marginally faster rate of 0.3% per year. Average annual growth is forecast in just two sectors, infrastructure and public housing, the former driven largely by transport projects and the latter by the continuing need to provide increased levels of affordable housing.



M6 Toll road



Selfridges, Birmingham

Key findings

The performance of the West Midlands construction sector has been very patchy in recent years, with total output in the region growing by only 4% in real terms between 2000 and 2007, the worst performance of any region and nation in that period except Northern Ireland.

Looking forward, the only sector projected to grow significantly between 2009 and 2013 is infrastructure, at a rate of 5% per year. In addition to work starting on Birmingham New Street station, a number of road projects, such as Coventry's £64m street lighting programme and Birmingham's 25-year PFI roads contract, and increased investment in water and sewage are still expected to go ahead, despite the current economic conditions.

Marginal growth is expected for the public housing sector, as some increased funding is available in the short term to increase the provision of social housing in the West Midlands. However, as in other English regions, social housing providers who were making extensive use of section 106 agreements may find it difficult to keep levels of new build up in the short term due to the lack of private developments.

Despite work continuing on the Building Schools for the Future (BSF) programme, which the West Midlands benefits from moderately, output in the public non-housing sector is predicted to decline slightly over the whole of the forecast period due to work peaking in 2010 and the uncertainty of funding post-wave 4 of the programme.

The strongest decline is expected in the industrial sector, with output falling at an annual average rate of 1.2% over the forecast period. A weak performance from the manufacturing sector will have a knock-on effect on industrial construction, with firms unwilling to invest in new factories and warehouses in the short term.

Housing R&M is expected to perform better over the 2009 to 2013 period than non-housing, as work for the Decent Homes for All programme rolls out in the first part of the forecast period and house owners start spending again on their properties as economic conditions improve in the second part of the period.

Total construction employment in the West Midlands is projected to grow by only 1.8% between 2009 and 2013, to reach 219,000, one of the lowest rates across the UK. Construction managers are expected to see the largest increase in employment (1,180) between 2009 and 2013, followed by non-construction professional, technical, IT and other office-based staff (760). Surveyors are forecast to see the greatest proportional increase, with total employment expected to rise by 9% between 2009 and 2013. Increases of 8% are forecast for scaffolders, plasterers and dry liners and labourers nec*.

Despite its low employment growth, the West Midlands has one of the higher annual recruitment requirements at 3,620 due to the fact that the region contends with significant net outflows from its construction workforce.

3,620

new entrants to the construction industry needed each year

Wales

Wales

Total employment b 2009 and 2013	by occupation:
2009 2013	0 4,000 8,000 12,000 16,000 I I I I I
Senior, executive, and business process managers	3,450 3,730
Construction managers	7,250 7,940
Non-construction professional, technical, IT, and other office-based staff	9,840 10,500
Wood trades and interior fit-out	14,060 14,540
Bricklayers	2,860 2,890
Building envelope specialists	4,660 4,960
Painters and decorators	5,770 5,870
Plasterers and dry liners	3,320 3,550
Roofers	900 880
Floorers	1,220 1,260
Glaziers	2,610 2,680
Specialist building operatives nec*	4,110 4,260
Scaffolders	1,490
Plant operatives	3,180 3,160
Plant mechanics/fitters	950 1,010
Steel erectors/structural	2,330 2,460
Labourers nec*	6,950 7,710
Electrical trades and installation	5,310 5,350
Plumbing and HVAC Trades	6,300 6,580
Logistics	1,650 1,730
Civil engineering operatives nec*	4,080 4,100
Non-construction operatives	5,150 5,390
Civil engineers	2,420 2,330
Other construction professionals and technical staff	4,960 5,060
Architects	580 560
Surveyors	2,520 2,820





Wales Total employment and annual recruitment requirement (ARR) by occupation: 2009-2013

	Emplo	ARR	
	2009	2013	2009-2013
Senior, executive, and business process managers	3,450	3,730	<50
Construction managers	7,250	7,940	170
Non-construction professional, technical, IT, and other office-based staff	9,840	10,500	160
Wood trades and interior fit-out	14,060	14,540	390
Bricklayers	2,860	2,890	<50
Building envelope specialists	4,660	4,960	<50
Painters and decorators	5,770	5,870	140
Plasterers and dry liners	3,320	3,550	170
Roofers	900	880	<50
Floorers	1,220	1,260	60
Glaziers	2,610	2,680	120
Specialist building operatives nec*	4,110	4,260	110
Scaffolders	1,490	1,540	<50
Plant operatives	3,180	3,160	120
Plant mechanics/fitters	950	1,010	<50
Steel erectors/structural	2,330	2,460	50
Labourers nec*	6,950	7,710	220
Electrical trades and installation	5,310	5,350	50
Plumbing and HVAC Trades	6,300	6,580	130
Logistics	1,650	1,730	<50
Civil engineering operatives nec*	4,080	4,100	<50
Non-construction operatives	5,150	5,390	
Total (SIC 45)	97,440	102,090	2,120
Civil engineers	2,420	2,330	<50
Other construction professionals and technical staff	4,960	5,060	130
Architects	580	560	<50
Surveyors	2,520	2,820	<50
Total (SIC 45 and 74.2)	107,920	112,860	2,330

Total construction output is forecast to grow at an annual average rate of 0.6% in Wales, driven in particular by transport and energy projects. The R&M sector is expected to do better than new work on the back of increasing activity under the Housing Quality Standards scheme. Wales has one of the highest rates of employment growth at 4.6% between 2009 and 2013 and this drives a relatively large annual recruitment requirement for the size of its construction market.



National Botanic Garden of Wales



Sail Bridge, Swansea

Key findings

The breakdown of the new work sector shows infrastructure to be the strongest performer over the longer term, as it is in a number of regions and nations. The sector is projected to grow at an annual rate of 5.2% over the period as planned road projects get underway, such as the £84m Port Talbot Peripheral Distributor Road, the £320m PFI scheme to expand the M4 and a new bridge across the Menai Strait. Other schemes include the £400m wood-chip fuelled electricity station at Port Talbot.

The biggest prospective project for the principality is the Severn Barrage scheme, for which feasibility studies are currently being undertaken. If this £15bn project gets the go-ahead it may start before the end of the forecast period, although output from the scheme would be shared across Wales and the South West of England.

The long term mismatch of supply and demand in the housing sector means that after the falls of 2008 and 2009 private housing output should bounce back. How strong the recovery is likely to be is currently open to question and the forecasts have erred on the cautious side, taking output only back up to its 2002 level in the sector by 2013.

Public housing activity will follow a varied pattern over the next few years as falls in activity in the early part of the forecast period are then followed by growth in 2010 and 2011, to try and reach the Welsh Assembly's target of building an additional 6,500 affordable homes by 2010/11. Thereafter, public housing output is forecast to decline again to 2013. Unlike in many English regions, there seems little prospect for growth in the public non-housing sector over the 2009-2013 period. If public health and education work is not expected to grow over the short term then it is even more unlikely to expand in the medium term when the UK government will be looking to reduce capital expenditure across the country as a whole to contain a much increased public debt.

Implementation of the Welsh Quality Housing Scheme ensures that growth in Housing R&M in Wales is significantly higher than the UK average over the 2009 to 2013 period.

By 2013 total construction employment is forecast to reach 112,860, a 4.6% increase on the 2009 projected total. This is one of the highest rates of employment growth in the UK, due to the relative buoyancy of R&M in Wales, which is much more labour intensive than new work. Surveyors are expected to see the largest percentage increase in employment between 2009 and 2013 (11.9%), with labourers nec* (10.9%) second and construction managers (9.5%) third.

This relatively strong employment growth means that Wales has quite a high annual recruitment requirement of 2,330 in comparison with the size of its construction market. The biggest requirements in terms of numbers will be for wood trades and interior fit out (390 per year) and labourers nec* (220 per year).

8%

Wales has the highest rate of growth of Housing R&M output in the UK between 2009 and 2013

CSN Labour Market Intelligence 2009-2013

East of England



2009 2013	0	8,000	16	,000	24,000	32,000
Senior, executive, and business process managers			920 1,180			
Construction managers			1,100	20,7	60	
Non-construction professional, technical, IT, and other office-based staff				22	,750 26,330	28,570
Wood trades and interior fit-out					24,800 24,630	
Bricklayers		6,780 7,13			.,	
Building envelope specialists		9,2 9,6	210 610			
Painters and decorators			12,790 12,350			
Plasterers and dry liners		5,520 5,920				
Roofers		5,390 5,310				
Floorers		,500 ,550				
Glaziers		3,620 3,920				
Specialist building operatives nec*		4,850 5,170				
Scaffolders		650 ,950				
Plant operatives		5,080 4,790				
Plant mechanics/fitters		240 350				
Steel erectors/structural		710 750				
Labourers nec*		1	1,060 12,290)		
Electrical trades and installation				18,490 19,30		
Plumbing and HVAC Trades			14,1 14,7			
Logistics		3,700 4,100				
Civil engineering operatives nec*		4,350 4,170				
Non-construction operatives			12,710 12,610			
Civil engineers		4,350 4,500				
Other construction professionals and technical staff			15,0 16,	680 100		
Architects		370 340				
Surveyors		5,260 5,730				

Construction Output by main sub-sector: UK vs. East of England, 2008 (%)*





East of England

Total employment and annual recruitment

requirement (ARR) by	occupation:	2009-2013
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	Employment		ARR
	2009	2013	2009-2013
Senior, executive, and business process managers	9,920	11,180	210
Construction managers	20,760	22,750	340
Non-construction professional, technical, IT, and other office-based staff	26,330	28,570	100
Wood trades and interior fit-out	24,800	24,630	170
Bricklayers	6,780	7,130	240
Building envelope specialists	9,210	9,610	60
Painters and decorators	12,790	12,350	290
Plasterers and dry liners	5,520	5,920	160
Roofers	5,390	5,310	50
Floorers	3,500	3,550	<50
Glaziers	3,620	3,920	60
Specialist building operatives nec*	4,850	5,170	<50
Scaffolders	2,650	2,950	60
Plant operatives	5,080	4,790	90
Plant mechanics/fitters	2,240	2,350	<50
Steel erectors/structural	1,710	1,750	<50
Labourers nec*	11,060	12,290	330
Electrical trades and installation	18,490	19,300	230
Plumbing and HVAC Trades	14,150	14,770	60
Logistics	3,700	4,100	<50
Civil engineering operatives nec*	4,350	4,170	130
Non-construction operatives	12,710	12,610	
Total (SIC 45)	209,610	219,170	2,740
Civil engineers	4,350	4,500	<50
Other construction professionals and technical staff	15,680	16,100	130
Architects	1,870	1,840	<50
Surveyors	5,260	5,730	<50
Total (SIC 45 and 74.2)	236,770	247,340	2,890

Over the medium-term, total construction output in the East of England is forecast to increase at an annual average rate of 0.9%, higher than the UK average of 0.5%. The industry is much more reliant on the R&M sector in the East of England than the UK as a whole and the prognosis for this sector is for little change over the 2009 to 2013 period. Employment is projected to exceed 347,000 in 2013, a little down on the 2007 level as the economic downturn takes its toll in the short term.



Mathematical Science Centre, Cambridge



Peterborough Cathedral

Key findings

All sectors within new work are expected to see annual average growth over the long-term in the East of England, the only region or nation in which this is the case. Infrastructure is predicted to be the best performing sector, with an increase in output of close to 10% per year between 2009 and 2013. The healthy outlook for the sector is based largely upon major ports projects in the region, such as Shell Haven, Felixstowe and Harwich, but there are also plans for a new 800MW gas-fired power station at Kings Lynn or Peterborough.

The public housing sector is also expected to perform well in the medium-term with annual average growth of 4.9%. Pressures to increase provision of affordable housing remain and thus for most regions the trend of activity in this sector is likely to be upwards.

The remaining new work sectors are forecast to experience only modest average annual growth over the 2009 to 2013 period. Nevertheless, there are still some sizeable projects due to come on site in the region over the next few years, including the £350m SnOasis project, due to be the largest artificial ski slope in Europe when completed, and which could start in 2009. There are also four big PFI hospital projects that could start in the region over the forecast period, with a total value of around £700m. The health of the construction sector in the East of England is more reliant on the R&M sector than in other regions and nations as R&M makes up about 50% of output in the region. Overall, very slight declines are projected for both housing and non-housing R&M over the 2009 to 2013 period, but not enough to materially affect employment in the region.

Total construction employment by 2013 in the region is forecast to reach approximately 247,000 - a 4.5% rise on the projected total in 2009. This puts the East of England third in terms of employment growth over the forecast period, behind the North East and Wales. The largest trade occupation in the East of England remains wood trades and interior fit out, accounting for about 10.2% of total construction employment in the region in 2007, slightly lower than in the UK as a whole. The largest percentage increases in employment between 2009 and 2013 are expected to be for senior, executive and business process managers (12.7%), scaffolders (11.3%) and logistics (10.8%) occupations.

To meet this demand, the industry in the East of England will need to attract 2,890 new recruits each year and this would include around 340 construction managers, 330 labourers nec*, and 290 painters and decorators.

0.9%

The highest annual average output growth rate apart from Northern Ireland

Greater London

Greater London Total employment I 2009 and 2013	by occupation:
2009 2013	0 12,000 24,000 32,000 48,000
Senior, executive, and business process managers	19,020 20,460
Construction managers	29,100 31,330
Non-construction professional, technical, IT, and other office-based staff	42,270 44,130
Wood trades and interior fit-out	37,050 37,730
Bricklayers	8,900 8,900
Building envelope specialists	13,060 13,820
Painters and decorators	20,640 20,380
Plasterers and dry liners	4,520 4,950
Roofers	4,730 4,770
Floorers	4,630 4,720
Glaziers	3,230 3,220
Specialist building operatives nec*	6,560 6,710
Scaffolders	2,310 2,520
Plant operatives	2,950 2,880
Plant mechanics/fitters	2,710 2,830
Steel erectors/structural	2,580 2,670
Labourers nec*	12,680
Electrical trades and installation	21,990 22,750
Plumbing and HVAC Trades	20,900 21,670
Logistics	3,880
Civil engineering operatives nec*	4,120 4,080
Non-construction operatives	16,800 17,140
Civil engineers	8,160 8,580
Other construction professionals and technical staff	18,280
Architects	14,370 14,620
Surveyors	10,600 11,070

Construction Output by main sub-sector: UK vs. Greater London, 2008 (%)*



Greater London

Total employment and annual recruitment

requirement (ARR) by occupation: 2009-2013

	Employment		ARR
	2009	2013	2009-2013
Senior, executive, and business process managers	19,020	20,460	410
Construction managers	29,100	31,330	170
Non-construction professional, technical, IT, and other office-based staff	42,270	44,130	150
Wood trades and interior fit-out	37,050	37,730	770
Bricklayers	8,900	8,900	470
Building envelope specialists	13,060	13,820	200
Painters and decorators	20,640	20,380	630
Plasterers and dry liners	4,520	4,950	260
Roofers	4,730	4,770	50
Floorers	4,630	4,720	<50
Glaziers	3,230	3,220	130
Specialist building operatives nec*	6,560	6,710	260
Scaffolders	2,310	2,520	120
Plant operatives	2,950	2,880	280
Plant mechanics/fitters	2,710	2,830	320
Steel erectors/structural	2,580	2,670	190
Labourers nec*	12,680	13,750	210
Electrical trades and installation	21,990	22,750	320
Plumbing and HVAC Trades	20,900	21,670	130
Logistics	3,880	3,980	<50
Civil engineering operatives nec*	4,120	4,080	<50
Non-construction operatives	16,800	17,140	
Total (SIC 45)	284,630	295,390	5,160
Civil engineers	8,160	8,580	370
Other construction professionals and technical staff	18,070	18,280	210
Architects	14,370	14,620	170
Surveyors	10,600	11,070	120
Total (SIC 45 and 74.2)	335,830	347,940	6,030

Greater London is expected to see annual average construction output growth of 0.8% over the forecast period, a little above the UK average of 0.5%. New construction is forecast to grow at a faster rate than R&M, with an average annual increase of 1.7% between 2009 and 2013 in the former but a decline of 0.7% per year in the latter. Employment in the capital is projected to grow by over 12,000 between 2009 and 2013, leading to an annual recruitment requirement of just over 6,000.



Cardinal Place, Wandsworth, SW1



30, St Mary Axe, City of London

Key findings

Construction in Greater London has had a good three years between 2006 and 2008, with the industry in the region growing by an estimated 23% in real terms during this period. By far the two most buoyant sectors have been infrastructure and public non-housing, with the former driven by big transport projects and infrastructure work on the Olympic Park site, and the latter by health and education projects.

Infrastructure is predicted to continue to be the strongest performer growing by an average of 10.5% a year between 2009 and 2013. Major works related to the Thameslink project are due to start at Farringdon and Blackfriars stations in 2009, as is work at Heathrow East and activity relating to the redevelopment and expansion of Victoria Underground station should build up a head of steam. The biggest transport project since the Channel Tunnel, Crossrail, is due to start on site in earnest in 2010, providing a substantial work stream for the infrastructure sector well beyond the current forecast period.

Demand for affordable housing in the capital will remain very strong over the long term. Thus activity in the public housing sector should continue to grow, further boosted by the Mayor of London's recent announcement of extra funds for the housing sector. Private housing has a much lower average annual growth rate than the public sector between 2009 and 2013, but this disguises fairly robust growth from 2010 onwards as credit conditions are expected to ease and prospective house purchasers start to return to the market again. The public non-housing sector sees its average annual growth rate slow to 1.2% between 2009 and 2013 as, once all the projects in Waves 1-4 of the BSF programme get on site, there will be little further growth in education construction, particularly as funding for the programme post-wave 4 is uncertain. Furthermore, construction activity on the Olympic Park should peak in 2010, with a fairly sharp fall-off in output thereafter.

The construction market in London is very reliant on the health of the commercial market, which accounts for around half of all new work in the capital. Sharp falls in output are expected in the early part of the forecast period as demand for new office space evaporates in the recession. Prestigious projects, such as Leadenhall Tower, nicknamed the 'Cheesegrater', are likely to suffer delays as developers wait for a more opportune moment to start building. In the medium term it will take a while for the next office development cycle to build up once economic recovery sets in. The sector will be supported somewhat by PFI health and education projects, such as the 10-year £1bn St Barts scheme.

By 2013 total construction employment in Greater London is forecast to reach around 348,000, a 3.6% increase on the level predicted for 2009. The occupations projected to see the largest percentage increase in employment are plasterers and dry liners (9.5%), scaffolders (9.1%) and labourers nec* (8.4%). However in absolute terms, the biggest growth is likely to be for construction managers (2,230).

6,030

Greater London has the largest annual recruitment requirement in the UK

South East

South East Total employment I 2009 and 2013	by occupation:
2009 2013	0 15,000 30,000 45,000 60,000
Senior, executive, and business process managers	
Construction managers	39,590 42,600
Non-construction professional, technical, IT, and other office-based staff	52,140
Wood trades and interior fit-out	37,380 38,280
Bricklayers	12,670 13,090
Building envelope specialists	13,530 14,140
Painters and decorators	16,800 16,970
Plasterers and dry liners	6,590 7,140
Roofers	5,440 5,490
Floorers	6,470 6,590
Glaziers	6,640 6,920
Specialist building operatives nec*	8,790 9,070
Scaffolders	2,870 3,010
Plant operatives	5,280 5,080
Plant mechanics/fitters	4,020 4,110
Steel erectors/structural	3,790 3,910
Labourers nec*	13,220 14,020
Electrical trades and installation	24,950
Plumbing and HVAC Trades	30,690
Logistics	4,020
Civil engineering operatives nec*	
Non-construction operatives	16,290
Civil engineers	5,700
Other construction professionals and technical staff	
Architects	4,250 4,160
Surveyors	8,690 9,390

Construction Output by main sub-sector: UK vs. South East, 2008 (%)*



South East

Total employment and annual recruitment requirement (ARR) by occupation: 2009-2013

requirement (Ann) by occu	Jation. 2003-2013
	Employment

	Employment		Ann	
	2009	2013	2009-2013	
Senior, executive, and business process managers	15,390	16,370	480	
Construction managers	39,590	42,600	880	
Non-construction professional, technical, IT, and other office-based staff	52,140	54,180	280	
Wood trades and interior fit-out	37,380	38,280	420	
Bricklayers	12,670	13,090	350	
Building envelope specialists	13,530	14,140	150	
Painters and decorators	16,800	16,970	460	
Plasterers and dry liners	6,590	7,140	150	
Roofers	5,440	5,490	<50	
Floorers	6,470	6,590	110	
Glaziers	6,640	6,920	140	
Specialist building operatives nec*	8,790	9,070	170	
Scaffolders	2,870	3,010	180	
Plant operatives	5,280	5,080	90	
Plant mechanics/fitters	4,020	4,110	<50	
Steel erectors/structural	3,790	3,910	50	
Labourers nec*	13,220	14,020	60	
Electrical trades and installation	24,440	24,950	370	
Plumbing and HVAC Trades	29,900	30,690	410	
Logistics	4,490	4,820	300	
Civil engineering operatives nec*	9,780	9,610	60	
Non-construction operatives	15,930	16,290		
Total (SIC 45)	335,150	347,330	5,190	
Civil engineers	5,580	5,700	190	
Other construction professionals and technical staff	23,310	23,670	200	
Architects	4,250	4,160	<50	
Surveyors	8,690	9,390	70	
Total (SIC 45 and 74.2)	376,980	390,270	5,690	

ARR

South East construction industry output is projected to experience annual average growth of 0.5% between 2009 and 2013, in line with the UK average. Infrastructure is expected to be the main driver of growth, with the biggest project in the region, the M25 road-widening, due to start in spring 2009. The region is expected to need 5,690 new recruits each year to meet projected demand and to account for net flows of the workforce.



The New Medway Bridge, Kent

De La Warr Pavilion, Bexhill on Sea

Key findings

Infrastructure continues to be the main driver of growth in the South East, as it has been for some time. This buoyancy is predicated upon work on the £1bn M25 project as well as a number of rail improvements such as the redevelopment of Reading station and increased line capacity at Milton Keynes starting as planned.

In contrast, the forecast for the private housing sector is muted, with an annual average decline of 1.7%, despite a recovery in activity from 2010. Long-term housing demand in the region will remain strong as it is forecast to outstrip the UK average.

Public housing is projected to be one of the healthier sectors, with an annual average rate of growth of 4.2% between 2009 and 2013. The availability of £1.4bn of public funding to build new social housing, as well as improving local authority stock, will drive growth in the sector.

In contrast to that of the UK overall, the commercial sector is forecast to see growth over the long-term with an annual average increase of 2%. The relatively robust forecast for commercial construction is due to two large PFI hospital projects, one for Maidstone and Tunbridge Wells NHS and the other Pembury Hospital, creating significant output streams. Furthermore office construction activity in the region, particularly in the Thames Valley is expected to hold up better in the short term than across the UK as a whole.

In contrast, the South East does not benefit strongly from expenditure on the Building Schools for the Future programme, with only two projects in the first four waves and a total investment of £250m, including ICT provision. After a general election, any new government will be looking closely at public expenditure programmes as the need to control growth in public debt becomes more urgent. In the South East, as with the East of England, R&M accounts for around 50% of total construction output, compared with the UK average of 44%. Prospects for the sector are muted, with no overall growth in activity between 2009 and 2013. Housing R&M output is likely to suffer in the short term as consumers delay expenditure on high value improvements during the economic downturn. Work in the social housing sector under the Decent Homes for All programme will not be enough to mitigate the falls on the private R&M side.

Despite being overtaken by Greater London in construction output terms in 2006, the South East remains the largest region in employment terms and it is projected to account for over 15% of the UK total in 2013, at around 390,000. The larger share of employment in the South East compared to Greater London is due to its relatively larger R&M sector, where work is considerably more labour intensive than new work.

Between 2009 and 2013, the largest percentage increases in employment are expected for plasterers and dryliners (8.3%), surveyors (8.1%), construction managers (7.6%) and logistics (7.3%). However in absolute terms, construction managers will see the largest growth in employment over the forecast period at just over 3,000.

390,270

The South East remains the largest region in employment terms in 2013

South West

South West Total employment l 2009 and 2013	by o	occupation:			
2009 2013	0 1	8,000 I	16,000 I	24,00 I)0 32,00
Senior, executive, and business process managers		6,360 6,740			
Construction managers				,650 7,820	
Non-construction professional, technical, IT, and other office-based staff					24,080 23,930
Wood trades and interior fit-out					24,190 23,750
Bricklayers			330 ,700		
Building envelope specialists			11,100 11,000		
Painters and decorators			13,830 13,110		
Plasterers and dry liners		2,960 3,190			
Roofers		4,570 4,470			
Floorers		3,460 3,510			
Glaziers		3,950 3,930			
Specialist building operatives nec*		6,190 6,230			
Scaffolders		1,680 1,790			
Plant operatives		4,440 4,080			
Plant mechanics/fitters		1,860 1,840			
Steel erectors/structural		1,810 1,870			
Labourers nec*			13,480 14,11		
Electrical trades and installation			11,060 10,820		
Plumbing and HVAC Trades			15,5 15,1		
Logistics		1,860 1,860			
Civil engineering operatives nec*		4,790 4,470			
Non-construction operatives			13,180 12,930	1	
Civil engineers		4,710 4,490			
Other construction professionals and technical staff			12,330 12,370		
Architects		3,750 3,650			
Surveyors		4,680 4,990			

Construction Output by main sub-sector: UK vs. South West, 2008 (%)*



South West

Total employment and annual recruitment requirement (ARR) by occupation: 2009-2013

requirement (ARR) by occupation: 2009-2013				
	Employment ARR			
	2009	2013	2009-2013	
Senior, executive, and business process managers	6,360	6,740	<50	
Construction managers	16,650	17,820	<50	
Non-construction professional, technical, IT, and other office-based staff	24,080	23,930	100	
Wood trades and interior fit-out	24,190	23,750	80	
Bricklayers	9,330	9,700	50	
Building envelope specialists	11,100	11,000	<50	
Painters and decorators	13,830	13,110	<50	
Plasterers and dry liners	2,960	3,190	<50	
Roofers	4,570	4,470	100	
Floorers	3,460	3,510	<50	
Glaziers	3,950	3,930	<50	
Specialist building operatives nec*	6,190	6,230	50	
Scaffolders	1,680	1,790	<50	
Plant operatives	4,440	4,080	<50	
Plant mechanics/fitters	1,860	1,840	90	
Steel erectors/structural	1,810	1,870	100	
Labourers nec*	13,480	14,110	90	
Electrical trades and installation	11,060	10,820	160	
Plumbing and HVAC Trades	15,530	15,160	<50	
Logistics	1,860	1,860	<50	
Civil engineering operatives nec*	4,790	4,470	<50	
Non-construction operatives	13,180	12,930		
Total (SIC 45)	196,360	196,310	1,130	
Civil engineers	4,710	4,490	100	
Other construction professionals and technical staff	12,330	12,370	170	
Architects	3,750	3,650	<50	
Surveyors	4,680	4,990	<50	
Total (SIC 45 and 74.2)	221,830	221,810	1,450	

The South West is the only region projected to see an annual average decline in construction output between 2009 and 2013 at - 0.2%. New work is projected to see growth of 0.2% per year, whilst R&M is likely to decline by 0.7% per year over the same period. The strongest outlooks are for public housing, infrastructure and commercial construction. Employment is expected to remain static in the region between 2009 and 2013, at around 222,000.



Eden Project, Cornwall



Met Office, Exeter

Key findings

Marginal growth over the forecast period in new work is expected to be supported by the commercial sector. Following declines in 2009 and 2010, commercial output is likely to recover with year-on-year growth to 2013 of 0.8%. The recovery in the sector is predicated on a general improvement in economic conditions in the UK from the second half of 2010 and may be boosted by the region's position as a popular tourist destination, with leisure sector operators quite possibly looking to invest in improving their facilities in the run-up to the 2012 Olympics. Furthermore there is PFI work underway on the Building Schools for the Future projects and the redevelopment of the Queen Alexandra Hospital.

The public housing sector is expected to be the strongest of the new work sectors, with some £790m of funding available between 2008 and 2011, although a significant proportion of this is likely to be spent on the refurbishment of existing dwellings. However, the public housing sector is small, accounting for only 2% of construction output in the region, so its effect on total growth is marginal.

The prospects for growth in industrial construction are poor. The South West traditionally has a strong engineering sector, but the economic downturn and lack of both domestic and export demand are likely to impinge negatively on the sector in the short term. In this climate, investment in new machinery and buildings remains depressed. The poor output performance means that the South West is the only region that is projected to see no growth in employment between 2009 and 2013, with the total remaining static at around 222,000. However, this does not mean that there is no growth across any of the occupational groupings and increases are projected for plasterers and dry-liners (7.8%), construction managers (7%) and surveyors (6.6%) in particular.

The South-West's annual recruitment requirement of 1,450 is one of the lowest in the UK, in line with output performance and a relatively low level of outflow of the workforce.

Other construction professionals and technical staff (170) and electrical trades and installation (160) are expected to have the largest annual recruitment requirement for the region. However as a percentage of 2009 employment, steel erectors/structural (5.5%) and plant mechanics/fitters (4.8%) are expected to be most in demand.

1,450

Good workforce retention contributes to a relatively low annual recruitment requirement in the South West

Northern Ireland

Northern Ireland Total employment b 2009 and 2013	by occupation:
2009 2013	0 4000 8,000 12,000 16,000 I I I I I I
Senior, executive, and business process managers	1,620
Construction managers	3,690 3,870
Non-construction professional, technical, IT, and other office-based staff	6,210 6,310
Wood trades and interior fit-out	10,610 11,290
Bricklayers	5,010 5,300
Building envelope specialists	2,770 2,900
Painters and decorators	3,310 3,420
Plasterers and dry liners	2,740 3,020
Roofers	1,860 1,970
Floorers	400 390
Glaziers	990 1,030
Specialist building operatives nec*	2,220 2,350
Scaffolders	280 310
Plant operatives	2,820 2,830
Plant mechanics/fitters	720 760
Steel erectors/structural	390 380
Labourers nec*	4,300 4,700
Electrical trades and installation	5,660 5,780
Plumbing and HVAC Trades	6,110 6,440
Logistics	410 300
Civil engineering operatives nec*	1,320 1,340
Non-construction operatives	1,020 1,020
Civil engineers	2,370 2,470
Other construction professionals and technical staff	1,700
Architects	1,230 1,260
Surveyors	770 810





Northern Ireland

Total employment and annual recruitment

requiremen	t (ARR) by	<pre>/ occupation: 2</pre>	2009-2013
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	Emplo	ARR	
	2009	2013	2009-2013
Senior, executive, and business process managers	1,620	1,600	<50
Construction managers	3,690	3,870	<50
Non-construction professional, technical, IT, and other office-based staff	6,210	6,310	<50
Wood trades and interior fit-out	10,610	11,290	150
Bricklayers	5,010	5,300	130
Building envelope specialists	2,770	2,900	<50
Painters and decorators	3,310	3,420	<50
Plasterers and dry liners	2,740	3,020	50
Roofers	1,860	1,970	<50
Floorers	400	390	<50
Glaziers	990	1,030	<50
Specialist building operatives nec*	2,220	2,350	<50
Scaffolders	280	310	<50
Plant operatives	2,820	2,830	<50
Plant mechanics/fitters	720	760	<50
Steel erectors/structural	390	380	<50
Labourers nec*	4,300	4,700	<50
Electrical trades and installation	5,660	5,780	60
Plumbing and HVAC Trades	6,110	6,440	110
Logistics	410	300	<50
Civil engineering operatives nec*	1,320	1,340	<50
Non-construction operatives	1,020	1,020	
Total (SIC 45)	64,460	67,310	820
Civil engineers	2,370	2,470	50
Other construction professionals and technical staff	1,700	1,710	<50
Architects	1,230	1,260	<50
Surveyors	770	810	<50
Total (SIC 45 and 74.2)	70,530	73,560	900

Northern Ireland is projected to have the highest annual average growth rate between 2009 and 2013 in the UK at 1.6%, although this is considerably lower than the 3.5% predicted for 2008 to 2012 last year. However, since then the economic downturn has set in, which has affected the private housing and commercial construction markets in particular. Thus forecasts for the next two years are much less buoyant than they were. Construction employment is forecast to grow by 4.3% between 2009 and 2013, not the highest rate of employment growth in the UK due to the small size of the R&M market in the province, which is much more labour intensive than new work.

Key findings

Northern Ireland is no more immune to the current economic downturn than any other part of the UK and in the short term the construction industry in the province will struggle to deliver any real growth, despite the significant sums due to be invested in the 2008-2018 Investment Strategy. Rises in output are concentrated towards the second half of the forecast period and are to a great extent predicated on the expenditure programme set out in the Investment Strategy for Northern Ireland 2008-2018, combined with a recovery in the housing and commercial markets.

At present, the dormancy of the housing market in Northern Ireland means that many current and planned developments have been put on hold. However as economic conditions improve, consumer confidence returns and credit conditions ease, prospective purchasers will start to re-enter the market and, as long as the three-year planning permission window has not expired, residential projects can quickly get off the ground again. For example, the assumption is that phase 2 of the Titanic Quarter will start at some point during the forecast period and this features a residential area to the north of Abercorn Basin and another around Hamilton Graving Dock.

There are some significant projects still to roll out in the infrastructure sector, including sizeable road improvement projects on the A5, A6, and A8 and towards the end of the forecast period work may begin on the Greater Belfast Rapid Transport Line. In the utilities sector, extensive works are required to bring the province's water and waste water treatment infrastructure up to current European Union standards, and this is expected to be completed by 2014. Thus while the rate of growth in the sector falls off post-2009 it still remains robust over the whole of the forecast period.





Victoria Square, Belfast

Invest NI building, Belfast

The main drivers of public non-housing activity are education and health construction. Three new hospitals are due to be completed across the province by 2013, while there are plans for further school modernisation from 2012. However, with stronger growth in the earlier part of the forecast period, output is likely to decrease a little from 2011.

Total construction employment by 2013 in Northern Ireland is forecast to reach 73,560. This represents a 3,000 increase on projected employment for 2009, although it is a significant drop on the 2007 level. This is due to the fact that construction output in the province is estimated to have declined by 8% in real terms in 2008 bringing with it a consequent sharp fall in employment in that year.

The largest increases in percentage terms in construction employment between 2009 and 2013 are expected for scaffolders and plasterers and dryliners, with rises in excess of 10%. In absolute terms, the biggest growth will be for wood trades and interior fit out (680), labourers nec* (400), and plumbing and HVAC trades (330).

900

Northern Ireland will need 900 new recruits each year to meet projected demand

Explanations of terms

Annual recruitment requirement (ARR)

The annual recruitment requirement for new workers in the construction industry is calculated taking into account demand, plus the inflows and outflows of labour in the market. For this reason it cannot be calculated simply by taking the difference between 2009 and 2013 employment figures and dividing them by five (the number of years).

Number of new entrants/recruits

The number of new entrants or new recruits to the industry refers to the number of full time positions that are forecast to be required.

Accounting for PPP and PFI projects

Major government build projects such as hospitals and the Building Schools for the Future programme are being delivered UK-wide by a mix of PPP/PFI and public finance, depending on local authority procurement. For the purposes of the Construction Skills Network report, any projects financed by PFI/PPPs are represented within the commercial sector. Publicly financed projects are represented within the public non-housing sector.

Occupational groupings

- Bricklayers and building envelope specialists -Bricklayers, masons, labourers in building and woodworking trades.
- **Roofers -** roofers, roof tilers and slaters.
- Electrical trades and installation Electricians, electrical fitters, Electrical/electronic engineers, Telecommunications engineers, Lines repairers and cable jointers.
- **Plant operatives** Crane Drivers, Plant and machine operatives, Transport operatives, Fork–lift truck drivers, Mobile machine drivers and operatives.
- Scaffolders Scaffolders, stagers, riggers.

- Wood trades and interior fit-out Carpenters and joiners, Pattern makers, Paper and wood machine operatives, Furniture makers, other craft woodworkers, Labourers in building and woodworking trades,
- **Plant mechanics/fitters** Metal working production and maintenance fitters, Precision instrument makers and repairers, Motor mechanics, auto engineers, Labourers in process and plant operations.
- Construction professionals and technical staff -Civil engineers, Mechanical engineers, Electrical engineers, Chemical engineers, Design and development engineers, Production and process engineers, Planning and quality control engineers, Engineering professionals, Electrical/electronic technicians, Engineering technicians, Building and civil engineering technicians, Science and engineering technicians, Architectural technologists and town planning technicians, Architects, Town planners, Quantity surveyors, Chartered surveyors.
- Other professionals/technical staff and IT -IT operations technicians, IT user support technicians, Estimators, valuers and assessors, Finance and investment analysts/advisers, Taxation experts, Financial and accounting technicians, Vocational and Industrial trainers and instructors, Business and related associate professionals, Legal associate professionals, Inspectors of factories, utilities and trading standards, Software professionals, IT strategy and planning professionals, Estate agents, auctioneers, Solicitors and lawyers, judges and coroners, Legal professionals, Chartered and certified accountants, Management Accountants, Management consultants, actuaries, economists and statisticians.

About the Construction Skills Network

The Construction Skills Network, launched in 2005, represents a radical change in the way research, data and information on the future employment, skills and training needs of the construction industry is collected and produced.

Co-ordinated by ConstructionSkills, the Sector Skills Council for Construction, with the technical expertise of Experian, it draws in the knowledge and experience of Government, Sector Skills Councils, construction companies, education and training providers, regional agencies and customers across the UK. This unique collaboration means the Construction Skills Network provides, as near as possible, a consensus view of the current and future skills and training needs of the industry.

A model approach

The data and conclusions revealed in this report are the results of thorough data analysis backed up by invaluable consultation with a range of experts and practitioners from within the construction industry who kindly gave their experience and knowledge to reality check the assumptions and subsequent results.

Regional Observatory Groups and an over-arching National Observatory Group, with members drawn from Government, education and the construction industry, reviewed and tested a series of assumptions and forecasts about skills, productivity and capacity based on data, research and intelligence shared by industry bodies, Sector Skills Councils and Government departments. The Observatory Group members fed back their observations, knowledge and insight of what was really happening on the ground in every UK region, and this was used to fine tune the assumptions and data that went into the forecasting programme. Details of specific projects, demand within various types of work and sectors, construction labour supply and the inflows and outflows of employment across the industry, region by region, were all built into the model, and the results were then reassessed by the Observatory Groups.

Thanks to these people we can place greater confidence in the results produced. The network of Observatory Groups has also meant that we have a precious resource going forward with this project that will help us develop, refine the forecasting and respond to changes far better than would otherwise be the case.

The Observatory Groups will continue to highlight the real issues that we can take into account that are faced by the industry throughout the UK so that we can more efficiently and effectively plan our response to skills needs and target the investment needed at both a national and regional level.

And finally, the Network provides us with an opportunity to share information and best practice with organisations beyond our immediate industry footprint – including our partner Sector Skills Councils and Government departments, to provide them with authoritative data to incorporate into their own capacity and productivity planning.

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About ConstructionSkills

ConstructionSkills is the Sector Skills Council for construction, tasked by Government to ensure the UK's largest industry has the skilled workforce it requires. Working with Government, training providers and employers, it is responsible for ensuring that the industry has enough qualified new entrants and that the existing workforce is fully skilled and qualified, as well as for improving the performance of the industry and the companies within it.

A full copy of the Construction Skills Network report can be downloaded at **www.cskills.org/csn**

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CITB-ConstructionSkills, CIC and CITB Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction. (CITB-ConstructionSkills registered charity number 264289)